

Chapter 1 Assessment Overview

Organization of this Report

The Forest Service has prepared this assessment report in compliance with the provisions of the 2012 National Forest System Land Management Planning Final Rule (2012 Planning Rule). The report includes three chapters:

Chapter 1 Assessment Overview explains the Forest Service land management planning framework, describes the planning area's location and distinctive features, and provides brief overviews of the dominant ecological, social, and economic influences on the planning area. The uses and benefits derived from the Chugach National Forest (national forest) are listed and the public engagement efforts and feedback received during the assessment phase are summarized. Chapter 1 concludes with discussion on how the relevant information from the assessment will be used to inform subsequent planning stages, beginning with the identification of the preliminary needs to change the 2002 Chugach National Forest Land and Resource Management Plan (2002 Forest Plan).

Chapter 2 Ecological Conditions and Trends describes the range of ecosystems encountered within the Chugach National Forest, including aquatic (watersheds and fish), terrestrial (soils, vegetation, and wildlife) and the interface between the two (riparian areas and wetlands). Key characteristics of each ecosystem are identified, including species composition and diversity, structure, function, and connectivity. Existing conditions and trend of the key characteristics are described for each ecosystem. System drivers are also discussed and include identification of the dominant ecological processes, disturbance regimes, and stressors for the different ecosystems. The chapter concludes with an overview of ecosystem vulnerability to adapt to a changing climate.

Chapter 3 Cultural and Socio-Economic Conditions and Trends describes the multiple uses and benefits of the Chugach National Forest, including Native Alaskan cultural subsistence activities; areas of tribal importance; land status; access; social, cultural, and economic conditions; designated areas; ecosystem services; and natural resource benefits. This chapter is different than chapter 2 in that it focuses on resources as used and enjoyed by people.

Chapter 4 Literature Cited includes a list of citations referenced throughout this assessment.

Map Package Appendix contains 11x17-inch maps of relevant information referenced in the report.

Background

The National Forest Management Act (NFMA) of 1976 requires every national forest or national grassland managed by the Forest Service to develop and maintain an effective land management plan (also known as a forest plan) and to amend or revise the plan when conditions significantly change. The process for the development and revision of plans, along with the required content of plans, is outlined in the planning regulations, often referred to as the planning rule. Managers of individual national forests and national grasslands follow the direction of the planning rule to develop a land management plan specific to their unit that sets forth the direction the Forest Service will follow in the future management of lands and resources within the unit's boundary. The current rule guiding Forest Service land management planning activities was approved in April 2012, and is published in its entirety at Title 36 Code of Federal Regulations (CFR) Part 219.

Forest Plan Revision Framework

NFMA regulations require that each forest plan be revised every 10 to 15 years (36 CFR 219.10). The Chugach National Forest Land and Resource Management Plan, was approved in May 2002 and has been amended five times, most recently in 2013. The five amendments include:

- Kenai Winter Access Amendment (July 2007)
- Amendment to Add Three Monitoring Questions to the Monitoring and Evaluation Strategy (September 2010)
- Management Indicator Species Amendment (May 2012)
- Heritage Resources Amendment (September 2012)
- Monitoring and Evaluation Strategy Amendment (January 2013)

In early 2012, the Chugach National Forest was selected as one of eight national forests to revise their existing land management plans using the requirements of the 2012 Planning Rule. As stated in the 2012 Planning Rule, planning for a national forest is an iterative process that includes an assessment; developing, amending, or revising a plan; and monitoring. These three phases of the framework are complementary and may overlap. The intent of the planning framework is to create a responsive planning process that informs integrated resources management and allows the Forest Service to adapt to changing conditions, including climate change, and improve management based on new information and monitoring. The Chugach National Forest planning process consists of the following three steps:

1. **Assessment Phase.** The evaluation of existing information, such as relevant ecological, economic, and social conditions, trends, and sustainability, and its relationship to the land management plan within the context of the broader landscape.
2. **Revision Phase.** The updating of information, including identification of the need to change the forest plan based on the assessment, development of a proposed plan and alternatives, consideration of the environmental effects of the proposed plan and alternatives, provision for public review of and comment on the proposed plans, provision to object before a proposed plan is chosen, and, finally, approval of the selected plan.
3. **Monitoring Phase.** The continuous observation and collection of feedback for the planning cycle that is used to test relevant assumptions, track relevant conditions over time, and measure management effectiveness.

Assessment Phase

This document, the assessment, is the result of completing phase one. The assessment is designed to evaluate and present existing information about relevant ecological, economic, and social conditions; trends and sustainability; and associated relationships to the land management plan. Assessments are not decision-making documents but provide current information on select topics relevant to the plan area. This assessment contributes to the planning process by:

- Providing information to help identify the need for change in the plan revision process
- Identifying and evaluating a solid base of existing information relevant to the plan revision
- Building a common understanding of that information with the public and other interested parties before starting the plan revision
- Developing relationships with interested parties, government entities, Indian tribes, private landowners, and other partners
- Developing an understanding of the complex topics across landscapes that are relevant to planning for the national forest

To complete the assessment, the responsible official shall carefully evaluate readily available information that is relevant. Relevant means the information must pertain to the topics under consideration at spatial and temporal scales appropriate to the plan area and to a land management plan. Relevance in the assessment phase is information that is relevant to the conditions and trends of the following 15 topics identified at 36 CFR 219.6(b):

1. Terrestrial ecosystems, aquatic ecosystems, and watersheds
2. Air, soil, and water resources and quality
3. System drivers, including dominant ecological processes, disturbance regimes, and stressors, such as natural succession, wildland fire, invasive species, and climate change; and the ability of terrestrial and aquatic ecosystems on the plan area to adapt to change
4. Baseline assessment of carbon stocks
5. Threatened, endangered, proposed and candidate species; potential species of conservation concern (SCC); and species of public interest present in the plan area
6. Social, cultural, and economic conditions
7. Benefits people obtain from the Chugach National Forest planning area (ecosystem services)
8. Multiple uses and their contributions to local, regional, and national economies
9. Recreation settings, opportunities and access, and scenic character
10. Renewable and nonrenewable energy and mineral resources
11. Infrastructure, such as recreational facilities and transportation and utility corridors
12. Areas of tribal importance
13. Cultural and historical resources and uses
14. Land status and ownership, use, and access patterns
15. Existing designated areas located in the plan area including wilderness, wild and scenic rivers, and potential need and opportunity for additional designated areas.

In general, for each of the 15 topics, the assessment may:

- Describe or identify important information evaluated in this phase.
- Describe the nature, extent, and role of existing conditions and reasonably foreseeable future trends within the plan area and in the broader landscape. Trends may imply a range of changes that are reasonably foreseeable in the future. Statistical analysis is not implied or necessary to identify and describe trends in the assessment phase. Trends may be described in broad terms, such as increasing, decreasing, or remaining stable.
- Describe the contribution that the planning area makes to ecological, social, or economic sustainability related to the topic.
- Identify information gaps as described in 36 CFR 219.6(a)(3).

Description and Distinctive Features of the Planning Area

The Chugach National Forest is in southcentral Alaska and is where distinctive cultures, customs and ways of life converge—urban and rural residents alike value it for subsistence, recreation, work, and adventure. The Chugach National Forest has been continuously inhabited for more than 10,000 years, and its first nations include the Chugach, Eyak, Ahtna, and Dena’ina. Communities within the planning area include Whittier, Hope, Seward, Cooper Landing, Moose Pass, Tatitlek, Chenega Bay, Eyak, and Cordova. Adjacent to the planning area are the communities of Anchorage, Girdwood, Valdez, Sterling, Kenai, and Soldotna. Its 5.4 million acres (see figure 1) are quite literally the backyard for approximately half of Alaska’s people.

Land Areas of the National Forests is an annual report containing national statistics on land areas administered by the Forest Service. According to the most recent report available (containing data as of September 30, 2013), the Chugach National Forest includes 5,417,172 acres of National Forest System lands. Land ownership patterns are dynamic; however, and acreage values identified throughout this assessment may vary, depending on when the source data were collected.

The Chugach National Forest is the farthest north and west of all national forests in the National Forest System and by declaration is the second largest. It is subdivided into three administrative units: the Glacier, Seward, and Cordova Ranger Districts. The planning area spans three broad geographic areas: the Copper River Delta, Kenai Peninsula, and Prince William Sound.

Nearly 96 percent (5,184,000 acres) of the Chugach National Forest is managed to allow natural ecological processes to occur with very limited human influence. It is in the remaining 4 percent (216,000 acres), primarily on the Kenai Peninsula, where active management and the largest amount of human uses occur.

To the northeast and near the Copper River Delta, the Chugach National Forest is bordered by the Wrangell-Saint Elias National Park and Preserve while to the east it is bordered by public lands managed by the Bureau of Land Management. On the Kenai Peninsula and to the west, it is bordered by the Kenai National Wildlife Refuge and the Kenai Fjords National Park. To the north and near Girdwood, it is bordered by the Chugach State Park.

The following paragraphs briefly describe the three distinct geographic areas of the Chugach National Forest that are evaluated as part of the broader landscape.

Copper River Delta

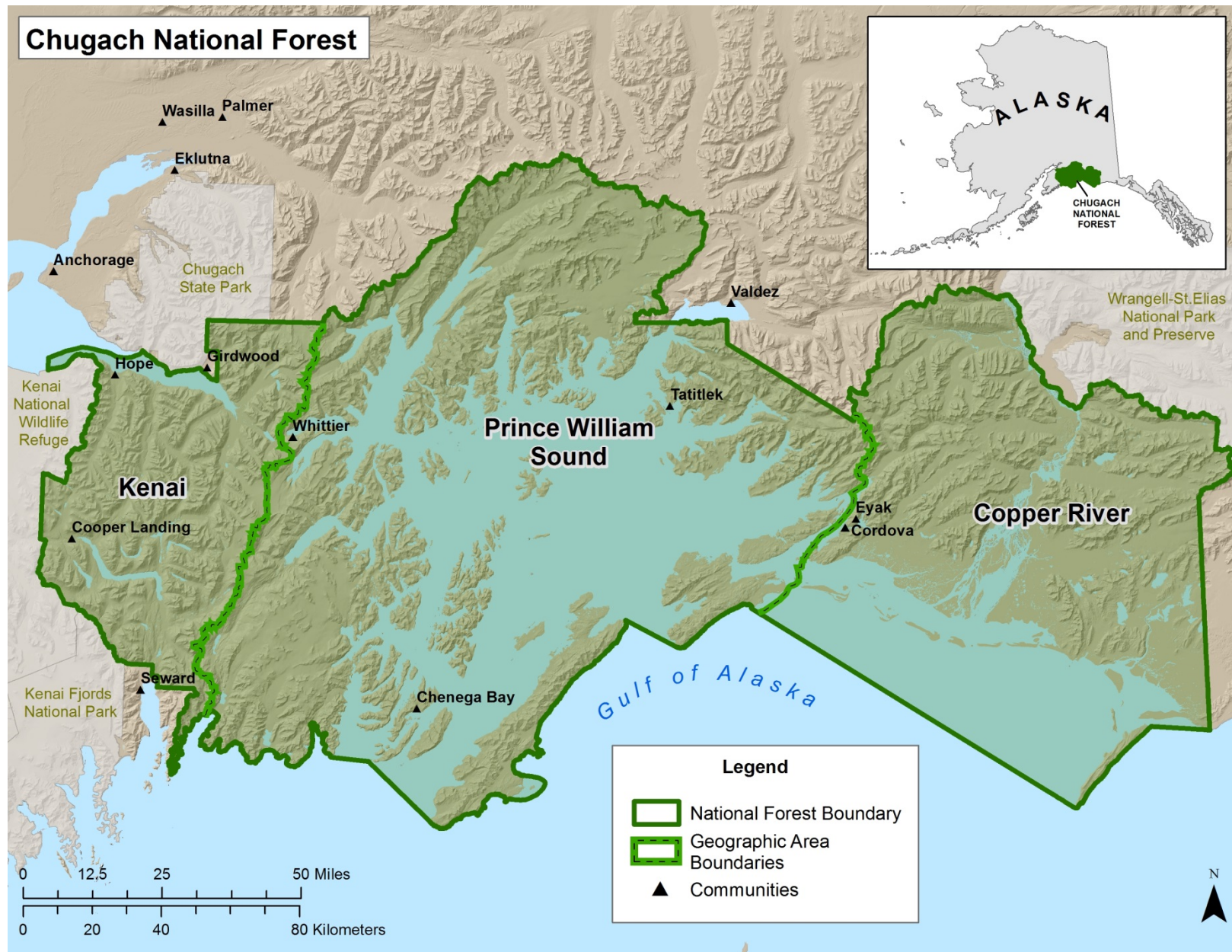
The Copper River Delta geographic area makes up 31 percent (1.66 million acres) of the national forest. The area is known for its vast wetland wildlife habitats, mountains, and glaciers. It enjoys a well-deserved reputation as a birder's paradise and is the home habitat of the famous Copper River red (sockeye) salmon, one of the most highly prized fish in the world. As prescribed by Section 501(b) of the Alaska National Interest Lands Conservation Act (ANILCA), the Copper River Delta is to be managed for the primary purpose of conserving fish and wildlife and their habitat.

Kenai Peninsula

The Kenai Peninsula geographic area makes up 21 percent (1.16 million acres) of the national forest. Nearly half of Alaska's population lives within a short drive to the Kenai Peninsula, making it the most accessible area of the Chugach National Forest. Its forested lands, mountains, and rivers receive the most human use of the three geographic areas.

Prince William Sound

The Prince William Sound geographic area is in the heart of the national forest and accounts for 48 percent of the acres (2.6 million). It is an area of forested islands, intricate coastline, and glaciers. A portion of the Prince William Sound was the site of the Exxon Valdez oil spill in 1989. Lands in the western portion were designated as the Nellie Juan-College Fiord Wilderness Study Area (WSA) in Section 704 of ANILCA in 1980.



Map 1. Geographic Areas of the Chugach National Forest

Overview of Ecological Influences

Detailed discussions of the ecological conditions and trends of the planning area are described in chapter 2. The following paragraphs briefly summarize the more predominant ecological influences identified during the assessment.

Glaciation has been one of the dominant forces of influence within the Chugach National Forest. Almost all the land now within the national forest was covered by glaciers until 14,000 years ago. The topography of the national forest was partially formed as the lands were scoured and exposed by up to 18 periods of glacial formation and retreat. Glacial outwash formed river valleys and drainages and distributed sediments. Snow and ice currently cover 27 percent of the Chugach National Forest, and glaciers continue to influence this landscape and its hydrologic processes.

Tectonic movement has also greatly influenced the Chugach National Forest. Southcentral Alaska is one of the most tectonically active areas of the world. The Kenai and Chugach mountains were formed by the Pacific Plate sliding beneath the North American Plate. Movement can be rapid and result in large disturbed and displaced areas; the 1964 earthquake raised much of the eastern part of the Chugach National Forest an average of 10 feet in a matter of minutes.

Climate influences physical and ecological processes in the planning area, such as the development and retreat of glaciers. Climate within the Chugach National Forest is influenced by both maritime and continental weather patterns, and each of the three geographic areas is different. The Copper River Delta is influenced by strong continental winds that blow in from the north and cool the area. The Kenai Peninsula receives the least amount of precipitation. Prince William Sound receives the most precipitation and has the largest percent of perennial snow and ice cover. There is uncertainty about what changes in climate may occur in the planning area. Modeling completed as part of an ongoing Climate Change Vulnerability Assessment suggests that temperatures will warm and precipitation will increase, although less as snow and more as rain.

The vegetation diversity that currently exists within the Chugach National Forest is an outcome of the interaction of glaciation, tectonic movement, topography, and climate. As land became exposed following glacial retreat, vegetation gradually became established. Patterns in vegetation distribution, life stage, and species composition are directly related to elevation, slope aspect, temperature, precipitation, soil development, and time since last disturbance. Areas where temperature and snow and ice cover have previously limited the establishment of vegetation may become available with future climate regimes. Changed conditions may also allow currently non-native or potentially invasive species to become established.

The wildlife diversity of the planning area has a similar representation of species as what was described by the first European explorers in the mid-1700s. The distribution and abundance of wildlife populations have been manipulated over time by people through hunting, trapping, introductions, and reintroductions. Changing climate conditions may allow a few currently non-native species (those found in association with human habitation) to become established within the national forest.

Five salmon species occur within the Chugach National Forest, and these species provide an important input of nutrients into some forest ecosystems when their bodies decompose after spawning. Salmon populations are influenced by many factors outside of the Chugach National Forest boundary.

Overview of Social and Economic Influences

Detailed discussions of cultural and social and economic conditions and trends of the planning area are in chapter 3. The following paragraphs briefly summarize the predominant cultural and socio-economic influences identified during the assessment.

Social and economic information is summarized for three population areas: the Municipality of Anchorage (population 287,000), the Kenai Peninsula Borough (population 55,000), and the Valdez-Cordova census area (population 9,600). The Kenai Peninsula geographic area is closest to the largest population centers (Municipality of Anchorage, Kenai Peninsula Borough) and is accessed by the Seward and Sterling Highways. Both the Copper River Delta and Prince William Sound are included in the Valdez-Cordova census area. Travel to or within these geographic areas is primarily by boat or float plane.

During the last census period (2001-2010), population in the Municipality of Anchorage and Kenai Peninsula Borough increased by 27 and 35 percent, respectively. Population decreased by four percent in the Valdez-Cordova census area.

Four main industries that use forest related resources in the planning area are commercial salmon fishing and processing; tourism and recreation; wood products; and minerals (excluding oil and gas). The proportion of jobs provided by forest resource related industries is 12.1, 6.5, and 3.4 percent in the Kenai Peninsula Borough, Valdez Cordova census area, and Municipality of Anchorage, respectively. Most of the employment and income from forest resource related industries is in commercial fishing and processing, followed by tourism and recreation.

The Chugach National Forest offers businesses and individuals opportunities for jobs and income related to forest health management, outdoor recreation, and tourism. Communities with larger populations have more diverse economies and are less dependent on the Chugach National Forest for these opportunities.

Overview of Resource Uses and Benefits

Resources within the Chugach National Forest provide a wide variety of goods, services, and benefits to individuals and society. Alongside these ecosystem services, the national forest is managed to allow multiple uses. This section summarizes ecosystem services and multiple uses found in the planning area. See chapter 2 for more discussion on ecosystem processes and chapter 3 for descriptions of Chugach National Forest products and uses.

Alaskan Natives continue to live within and use the resources of the Chugach National Forest. People derive broad nonmaterial benefits from the planning area that include educational opportunities, recreational experiences, tourism, aesthetics, and spiritual and cultural heritage. People from all over the world visit the national forest to see glaciers, salmon, and bears and to hike, raft, ski, snowmachine, hunt, and fish.

Harvesting and gathering occurs within the Chugach National Forest as both recreational and cultural subsistence activities. Examples include fish, big game, furbearers, small game, fruits, berries, mushrooms, and medicinal plants. Although no commercial timber harvest occurs, wood products, such as fuelwood and house logs, are also collected. Good quality water is provided for municipal and public water supplies, fish hatcheries, and fish and wildlife habitat. Ample water supply provides water for hydroelectric operations, fish passes, and water related recreation.

Some benefits obtained from ecosystem processes within the Chugach National Forest include water storage and filtration, soil stabilization, and carbon storage. Rapidly growing plants store carbon in plant

tissues. Healthy wetlands and riparian areas store water, releasing it slowly over time. Wetlands (approximately 15 percent of the Chugach National Forest) act as water filters to remove impurities.

Supporting services contribute to the production of other ecosystem services. The majority of the national forest has intact and properly functioning watershed conditions. These watersheds support aquatic and terrestrial ecosystems that are functioning within their natural range of variation. Human caused disturbances influence localized areas across the Chugach National Forest; however, ecological integrity is high within most of the national forest.

Public Engagement and Collaboration Efforts

The Forest Service has a long history of collaboration with the public and the communities in and around the Chugach National Forest. In this assessment, the Forest Service has built upon that platform and made extensive efforts to use new and innovative ways to extend these strong ties and engage new audiences in the planning process.

Throughout the assessment phase, the Forest Service worked to develop and provide:

- Focused, meaningful opportunities for participation that recognize and build from the public's previous contributions in previous collaborations
- Timely information to help the public understand the process and how to get involved
- Clear expectation/understanding of how the public can participate in plan revision at every step of the process
- Broad stakeholder engagement to new and underserved audiences, including youth, minorities, and low income populations

To be more successful, key seasons and community events (e.g., summer tourist, commercial fishing, fishing and hunting seasons, and other local planning efforts) were considered when scheduling the various engagement efforts. The Forest Service developed a timeline to respect people's availability and to integrate the ongoing three-year public participation process with the requirements of forest plan revision.

April and May 2012 Community Workshops

Beginning in March 2012, the Forest Service began to lay the foundation to educate and engage the public about the forest plan revision process. In addition to alerting the public and stakeholders through press releases, letters and Web-based information, the Forest Service partnered with the University of Alaska Anchorage (UAA) to design and host community workshops to:

- Educate the public about the national forest's selection as an early adopter and share a broad timeline for upcoming plan revision
- Gather insights on public interest and concern about forest plan revision
- Obtain initial public feedback on values, use, and trends to help inform forest plan revision and begin a dialogue about the Forest Service's unique role and contribution within southcentral Alaska

Workshops were developed to be interactive and included multiple methods for data generation, including workbook activities, a participatory mapping exercise, and interactive group discussion. Community workshops were held in 10 communities during April and May 2012:

- Kenai/Soldotna (April 16), Kenai Peninsula College, 2 participants
- Cooper Landing (April 17), Cooper Landing Community Center, 8 participants

- Moose Pass (April 18), Moose Pass School, 2 participants
- Seward (April 19), Legends Building, 7 participants
- Cordova (April 24), Masonic Lodge, 14 participants
- Valdez (April 26), Prince William Sound Community College, 8 participants
- Hope (April 30), Hope School Gym, 2 participants
- Whittier (May 3), Whittier School, 8 participants
- Anchorage (May 8), University of Alaska Anchorage, 13 participants
- Girdwood (May 10), Girdwood Community Center, 7 participants

In addition to the workshops, an online participatory mapping interface (Talking Points) was available for the public at large to use from April to November 2012. The Web site was hosted by UAA and also provided background information and links to the Chugach National Forest Web site, the 2002 Forest Plan, and dates and locations of the community workshops. In total, the workshops and online mapping tool engaged 103 participants.

February and April 2013 Community Workshops

On January 31, 2013, the Forest Service issued a news release announcing the beginning of the first phase of the three year planning process to revise the 2002 Forest Plan using the 2012 Planning Rule. Additionally, on February 7, 2013, a legal notice was published in the Anchorage Daily News announcing the beginning of the assessment phase of the plan revision and upcoming opportunities for public engagement.

Methods used to invite participation in these workshops included emails, direct mail, electronic and hard copy flyers posted in key community locations, newspaper advertisements, radio spots, community meet and greets, announcements on community partners' Facebook and Twitter platforms, and Forest Service Web site and Twitter communications.

The workshops were designed to capture public and key stakeholder comments on three key topics:

- **Vision:** How the public and/or specific stakeholder groups use the national forest now and how might use and users change during the next plan period (10 to 15 years after approval)
- **Assessment:** What the public and/or specific stakeholder groups see as emerging issues and trends in the assessment topic areas, such as recreation and forest uses, climate change, vegetation and wildlife, watersheds, energy and mineral resources, and cultural heritage
- **Continued Communications and Participation:** How the public can best be involved in the forest plan revision process

During the workshops, Forest Service staff introduced the forest plan revision process and highlighted 2002 Forest Plan achievements. The participants then split into groups of 5 to 10 people to discuss the three key topics outlined previously: vision, assessment, and communications. Additionally, participants were encouraged to rotate between groups after each topic. Note takers recorded responses and discussions. After each topic, the facilitator reported the highlights of the discussion to the public workshop attendees.

Facilitators and note takers sent meeting notes to the Forest Service's Recreation Solutions Enterprise Unit, who standardized the meeting notes by community and topic. Finally, the notes were posted to the Chugach National Forest Web site. The notes also were sorted by overarching assessment categories and placed in a summary matrix and then shared with the forest plan revision interdisciplinary team for consideration as they prepared this assessment document.

Details and summaries of each major public engagement effort, including target audience and method of engagement follow. Not included in these summaries are findings from the public engagement effort related to specific assessment topics. Where applicable, those findings are addressed within the body of the issue-specific chapters of this assessment. More detailed information from all public engagement activities is available online from the Chugach National Forest plan revision Web page.

Workshop locations, dates, and approximate number of participants follow:

- Anchorage (February 7 and February 23)
- Alaska Forum on the Environment, Dena'ina Center, 18 participants
- Chugach National Forest Supervisor's Office, 13 participants
- Girdwood (February 20), Girdwood Community Center, 31 participants
- Seward (February 21), Seward Public Library, 32 participants
- Soldotna (February 21), Soldotna Sports Center, 37 participants
- Cooper Landing (February 25), Cooper Landing Community Center, 19 participants
- Moose Pass (February 25), Moose Pass Community Hall, 9 participants
- Cordova (February 27), Cordova Masonic Hall, 28 participants
- Valdez (February 28), Prince William Sound Community College, 45 participants
- Whittier (April 2), Begich Towers, 4 participants
- Hope (April 6), Hope Social Hall, 32 participants

September and November 2013 Community Workshops

As part of the assessment phase, the Forest Service completed a second round of public meetings in September and November. The meetings were held in Valdez, Cooper Landing, Soldotna, Seward, and Cordova in September and in Hope, Girdwood, and Anchorage in November.

The purpose of the second round of public workshops was to build from the first round of meetings and have a focused, informed dialogue regarding:

- The planning process: schedule, milestones, and status
- Themes from public input and relevant information gleaned during the assessment
- Potential themes/opportunities to inform plan revision
- Next steps and opportunities for providing feedback

The Chugach National Forest plan revision Web page includes a record of public comments received during the fall meetings and a link to a map that displays the geographic- or site-specific comments collected during the meetings. In addition, the general comments are available for review.

Again, the workshops involved participatory mapping and interactive group discussion. Public workshops were held in the following communities:

- Valdez (September 23), Prince William Sound Community College, 17 participants*
- Cooper Landing/Moose Pass (September 24), Cooper Landing Community Center, 6 participants*
- Soldotna (September 25), Soldotna Sports Center, 27 participants*
- Seward (September 26), Seward Public Library and Museum, 7 participants*
- Cordova (September 30), Masonic Hall, 14 participants*
- Hope (November 2), Hope Social Hall, 7 participants*

- Girdwood/Whittier (November 13), Girdwood Community Center, 25 participants*
- Anchorage (November 20), Chugach National Forest Supervisor's Office, 63 participants*

*Some participants did not sign in. It was noted that a significant number of people did not sign in at the Soldotna and Anchorage meetings.

Targeted Engagement Efforts

In addition to the 18 public workshops from February through November 2013, the Forest Service conducted a series of targeted outreach efforts to federally recognized Alaska Native Tribes and Corporations, youth, new audiences, permittees, and neighboring landowners, including the State of Alaska, to capture stakeholder input for this assessment. The next few sections describe these efforts.

Federally recognized Tribes and Alaska Native Corporations

Alaska Natives have lived on and adjacent to the land now identified as the Chugach National Forest for millennia. This land is significant to them as it provides for them and empowers them as individuals, families and people. This connection has many facets which includes language and stories.

Oral tradition describes how the Native name Chugach came to be. This story was passed down by John Klashinoff, who was born at the village of Nuchek in Prince William Sound in 1906. This oral history was recorded by John F.C. Johnson and published in Chugach Legends: Stories and Photographs of the Chugach Region.

"For ages and ages Prince William Sound, as it was named by Captain James Cook, was covered by a solid sheet of glacier ice that extended over nearly all of the bays and mountains. One day Native hunters were kayaking along the outer shores of the Pacific Ocean, when a man cried out: "Chu-ga. Chu-ga (hurry, hurry). Let's go see what that black thing is sticking out of the ice."

So the hunters paddled closer and closer to see what it was. Within a short distance, the hunters could see mountaintops emerging out of the retreating ice.

Thus these ocean travelers settled along the ice-free shores of the sound.

As the seasons changed from year to year, the ice melted rapidly, exposing deep fjords and lagoons that were rich in sea life and provided good beaches to settle on. It was known that life thrived in the areas where the salt and fresh water met.

When the ice retreated, so did the animals. The Chugach people followed the ice and animals deep into the heart of Prince William Sound, where they remain to this very day."

Story rights reserved by the Chugach Alaska Corporation. Printed with permission.

When the Chugach National Forest was announced as a 2012 Planning Rule early adopter, and again when the Forest Service began the first phase of the process in January 2013, the forest supervisor invited federally recognized Tribes and Alaska Native Corporations to attend early engagement workshops, to meet privately, and to provide direct consultation. Methods used to invite participation in the process included direct mail, email, and telephone. Each of the parties contacted are displayed in table 1.

Table 1. Tribes and Alaska Native Corporations within and adjacent to the plan area

Federally Recognized Tribes	Village Corporations	Regional Corporations
Chenega Bay IRA Council	Chenega Corporation	Chugach Alaska Corporation
Native Village of Eyak	Eyak Corporation	
Native Village of Nanwalek	English Bay Corporation	
Native Village of Port Graham	Port Graham Corporation	
Native Village of Tatitlek	Tatitlek Corporation	
Chickaloon Native Village	Chickaloon-Moose Creek Native Association	Cook Inlet Region, Incorporated
Eklutna Native Village	Eklutna, Incorporated	
Kenaitze Indian Tribe	Kenai Native Association, Incorporated	
Knik Tribe	Knikatu, Incorporated	
Ninilchik Village	Ninilchik, Incorporated	
Village of Seldatoff	Seldatoff Native Association, Incorporated	
Seldovia Village Tribe	Seldovia Native Association	
Native Village of Tyonek	Tyonek Native Corporation	

In response to this consultation invitation, the Forest Service met with leaders and representatives of:

- Chugach Alaska Corporation, September 12, 2012
- Native Village of Eyak and Eyak Corporation, February 27, 2013
- Cook Inlet Region, Incorporated, March 12, 2013
- Eklutna Incorporated, March 20, 2013
- Tyonek Corporation, March 25, 2013
- Chenega Corporation, November 7, 2013

The Forest Service also hosted a booth at the Alaska Federation of Natives annual conventions in 2012 and 2013, providing information on forest plan revision efforts.

The 2012 early engagement workshops initiated discussion of:

- The national forest's distinctive roles and contributions or niche (i.e., what makes the Chugach National Forest distinct, including what defines the national forest and the benefits people obtain from its ecosystems and landscapes)
- Seeking perspectives as a neighboring land owner
- How to best integrate traditional knowledge and land ethics while sensitively addressing cultural concerns

The 2013 consultations, notifications, and meetings were designed to communicate the plan revision process and timeline and to encourage and identify each individual stakeholder's preferred participation method(s) throughout the process. In addition, dialogue emphasized the 2012 Planning Rule content and direction with Tribes and Alaska Native Corporations, including:

- Native knowledge, land ethics, cultural issues, and areas of tribal importance
- Consideration of Tribal land management plans and policies
- Identifying conflicts and concerns with the 2002 Forest Plan

- Social, cultural, and economic conditions
- Consideration of Tribes participating as cooperating parties during formal plan revision phase (based on their interest after the potential scope of plan revision is determined and the formal NEPA process is initiated)

What was heard (issues/concerns/items of interest) during the meetings with Alaska Native parties includes the following topic areas:

- Land management: Native corporation lands adjacent to National Forest System lands and Exxon Valdez oil spill acquired lands and interests (easements/covenants), including protection of subsistence/archaeological resources, trespass onto Native corporation lands, sensitivity and need for coordination on names/locations placed on maps and visitor information
- Status of tribal land use plans (CIRI and Eyak Corporation are currently updating their land use plans)
- Management of archaeological sites and collections associated with Alaska Native culture
- Land use permitting on National Forest System lands
- Subsistence (with particular interest in moose and deer; increased competition for subsistence resources in Prince William Sound; concern about decreased funding for Copper River fisheries research)
- Managing and/or meeting public demand for resource amenities, goods, and services
- Concern about invasive species
- Concern about placement of recreation sites/cabins/trails that would increase public use and/or impact cultural sites and/or features
- Concern about new land use designations (i.e., wilderness areas)
- Need to implement the Memorandum of Understanding for the Squilantnu Archaeological District with CIRI, Kenaitze Indian Tribe, USFWS, and the Forest Service and associated Significant Activities noted in the MOU and Section D of the Selection Agreement which includes preparation of a cultural resource management plan (suggestion to consider a management area for the Squilantnu Archaeological District)
- Pond ecology, fisheries (e.g., loss of spawning habitat and glacial retreat) and water rights (e.g., minimum base flows for restoring fisheries)
- Watershed integrity (management for surface and underground water flows and water quality)
- Unauthorized dump sites within the national forest affecting water quality
- Interest in improving local economic development and private land opportunities adjacent to National Forest System lands (e.g., the village of Chenega is considering offering marine services and has interest in community development; the Native Village of Eyak (Cordova) is proposing the Prince William Sound Ocean Restoration Facility and Shepard Point Oil Spill Response Facility, Hartney Bay Subdivision, and woody biomass utilization to reduce diesel fuel)
- Hydroelectric and utility line connections/services on and/or across National Forest System lands (i.e., Valdez to Cordova)
- Access to forest products (e.g., fuelwood collection and berry picking)
- Moose habitat (concern with population decreases on the Kenai Peninsula, moose calf release program in Cordova, and moose browse winter range enhancement in Cordova)
- Recognition of the difficulty sometimes encountered by tribes to provide meaningful input to government processes, such as forest plan revision, due to tribal staff capacity and/or limited natural resource expertise, timeframes, and the nature of information requested

During these discussions, dialogue confirmed that:

- Alaska Natives have and continue to value and utilize natural and cultural resources across the national forest landscape
- Natural and cultural resources provide essential economic, social, recreational, ecological, spiritual, and subsistence value and identity to Alaska Native people
- Many of the 560 recorded plant species have been used for thousands of years for food, shelter, fuel, medicine, crafts, and spiritual purposes
- There are still selected lands to be conveyed under ANCSA
- Appreciation and continued opportunities for continuing and expanding partnerships and resource management in the future

As the plan revision process continues, the Forest Service is exploring opportunities to provide broader outreach to the Alaska Native community through existing forums (such as the Alaska Federation of Natives annual convention) and at Alaska Native community events.

As another example of seeking broader outreach, in April 2013, the forest supervisor met and informed representatives of the Russian River MOU Group that was established in 2010 in accordance with the requirements of the 2001 Russian River Section 14(h)(1) Selection Agreement and the 2002 Russian River Land Act. This group consists of leadership of the Kenaitze Indian Tribe, Cook Inlet Region, Inc., Kenai National Wildlife Refuge, and the Chugach National Forest. The Russian River Land Act requires the Russian River MOU Group parties to cooperate on efforts to “protect and preserve the outstanding historic, cultural and natural resources” in the vicinity of the confluence of the Russian and Kenai rivers.

Youth engagement

The 2012 Planning Rule encourages efforts to engage young people in the planning process. During the assessment phase, Chugach National Forest staff and project partners facilitated interactive planning activities with youth across the national forest in the following locations:

- Cordova (February 27 and 28, 2013), four classes with approximately 60 students
- Anchorage
 - King Career Center Natural Resource Management Students (April 8, 2013), two classes with approximately 30 students
 - Highland High Tech (April 15, 2013), one class with approximately 25 students
- Youth Employment in the Parks Summer Recruits (June 10, 2013), one group with approximately 25 attendees
- Whittier Middle and High School (May 20, 2013), one class with approximately 20 students

Chugach National Forest staff and key partners, including Alaska Geographic, the lead nonprofit partner for the Chugach Children’s Forest, worked with local teachers to develop a two-hour forest plan youth planning activity aimed at sharing and learning the following:

- What is the Forest Service, the Chugach National Forest; what do youth know about the Forest Service and the Chugach National Forest?
- What opportunities are there for young people?
- What kinds of activities are youth doing outdoors and where they are doing them (e.g., Anchorage, southcentral Alaska, other places in Alaska)?
- How do youth envision using the outdoors in the future?
- What changes have youth seen in the places where they recreate outdoors?

- How do youth like to learn and share information?

Youth who participated in these activities not only live in communities within and around the national forest, some are actively involved in additional educational and/or employment opportunities. For example, King Career Center participants were enrolled in a natural resources management vocational education class and had participated in Chugach Children's Forest activities. A different group of Anchorage participants were summer youth workers for the Anchorage Parks and Recreation Department. They were hired as part of the Youth Employment in Parks (YEP) program.

The youth planning sessions closely paralleled the public workshops. The sessions began with an activity to actively engage youth in answering key questions:

- How many of you spend time in parks or on trails in your community?
- Where do you like to go in your community and what do you like to do?
- How many of you have gone fishing? Where have you done that?
- How many of you have done outdoor activities outside of your community?

Participants wrote on posters what they like to do in their free time indoors and outdoors. Youth worked together in small teams to map where they used the national forest and how, challenges to their use, and potential solutions to those challenges. The teams shared the results of their work with the class. As a large group, participants then discussed changes they have seen in the national forest and natural world around them.

For the final activity, the participants created a management plan for their ideal national forest. With knowledge of the broad management area prescriptions as outlined in the 2002 Forest Plan, groups created a pie chart that displayed how much area would be dedicated to various uses. As with the public workshops, detailed notes from the youth planning sessions were posted on the Chugach National Forest Web site.

New audiences

In addition to public workshops, the 2012 Planning Rule encourages engagement of new audiences, such as low income and minority populations.

Working in partnership with the UAA, the Forest Service first pursued conducting introductory meetings for first time/new audiences at sites with regular programming for diverse populations in Anchorage (e.g., the Mountain View Library in Anchorage). This approach was modified to conducting small group discussions with key contacts within underserved communities and by asking them to invite a few other stakeholders to join a series of conversations at venues that were convenient for participants. By enlisting the help of existing contacts to invite individuals to a smaller and more focused format, targeted audiences were better reached. Participants were asked similar questions as those asked at the public workshops with a more conversational approach. A sample list of key stakeholder organizations includes:

- East African Community
- Anchorage Literacy Project Hmong Community
- Anchorage Adventurers Neighbor Works
- Joint Base Elmendorf-Richardson UAA Multicultural Center
- UAA English as a Second Language Program
- Northeast Anchorage Girl Scout Troop

Chugach National Forest special use permit holders

In May 2013, 228 Chugach National Forest special use permit holders were contacted directly via letter as part of the public engagement process. The letter encouraged their participation and assistance in the forest plan revision process. Permittees were asked specifically to contribute insights from their use of and experience within the Chugach National Forest. Permittees were encouraged to submit their comments via email or through the forest plan revision online comment form and to attend the public workshops.

The State of Alaska and other neighboring landowners

State of Alaska

On June 13, 2013, the Forest Service met with State of Alaska department leaders and specialists to review existing working agreements, to provide an overview of the 2012 Planning Rule and the revision process, and to discuss potential data gaps and overlapping issues of concern in the assessment topic areas. There were 15 attendees from five State of Alaska Departments, including Commerce, Community, and Economic Development; Environmental Conservation; Fish and Game; Natural Resources; and Transportation and Public Facilities.

On September 17, 2013, the Forest Service met with State of Alaska department leaders and specialists met for a second time to:

- Discuss forest plan revision progress
- Share public meeting materials to be presented at the upcoming fall public meetings, including themes developed from prior public input
- Share assessment findings and emerging opportunities for plan revision
- Review the next steps in the process
- Identify follow up topics

There were 12 attendees from five State of Alaska departments: Commerce, Community, and Economic Development; Environmental Conservation; Fish and Game; Natural Resources; and Transportation and Public Facilities.

The Forest Service and the State of Alaska continue to share dialogue on topics of interest and mutual concern or responsibility as forest plan revision efforts continue.

Other neighboring landowners

As part of the outreach to other neighboring landowners in April 2013, the Forest Service directly contacted, via email or letter, other key adjacent Federal and municipality or borough landowners/administrators to invite their participation in the plan revision process. This was done to learn about other plans, studies, or information that may be relevant to the assessment and to discuss areas of common interest. In September 2013, the Forest Service met with planning staff and/or managers of the Kenai Fjords National Park and Cordova, Valdez, and Kenai Peninsula boroughs.

Public Feedback

During 2012 and 2013, Forest Service staff engaged the public to discuss the management of the Chugach National Forest. As discussed previously, specialists have been evaluating existing information along with public feedback. Eight themes emerged both from internal work and from meetings with the public and interested parties:

- Alaska Native traditional knowledge and cultural heritage
- Recreation experiences
- Sustaining biodiversity, intact ecosystems, and connectivity
- Animals and plants as food and resources
- Wood as renewable energy and fuel source
- Water quantity and quality and air quality
- Education and research
- Socio-economic community

More detailed information from all public engagement activities is available online from the Chugach National Forest plan revision Web page (see www.fs.usda.gov/main/chugach/landmanagement/planning). This includes both geographic (site-specific) and general comments. Geographic comments are available in both list form sorted by topics and via a mapping tool. This tool allows users select a specific area within the national forest and see related comments. General comments are sorted by topic.

Communication Tools

Presentations and media appearances

In addition to the previously discussed meetings, the forest supervisor and the plan revision interdisciplinary team leader were invited to make multiple presentations. Of note were presentations at the southcentral Alaska Subsistence Regional Advisory Council meeting, the Citizens Advisory Commission on Federal Areas, and the Iditarod Historic Trail Alliance board of director's partner and collaboration meeting.

Members of the plan revision team and national forest staff and leadership also appeared on local media, including the Anchorage public radio interview show Hometown Alaska and the Anchorage ABC television affiliate, to discuss and share information about the plan revision process. There were interviews with print media in communities throughout the national forest, as well.

Forest plan revision newsletter

In June 2013, a plan revision newsletter was published and distributed to more than 800 individuals, organizations, and businesses. The newsletter provided the public and interested parties with information about the plan revision effort and included a message from the forest supervisor describing public comments and thoughts on the assessment. The newsletter also described what to look forward to as the Forest Service moves through the plan revision process.

Online and social media communications

The Forest Service maintains a Web page dedicated to forest plan revision efforts. The Web page provides plan revision documents, announcements, comment forms, mailing list signup, and agendas and notes from each public workshop. The Forest Service also communicates information related to forest plan revision, such as meeting and press announcements, through its one authorized social media account: Twitter (see @ChugachForestAK). Nonprofit and community partners across the national forest have also been engaged to share forest plan revision information on their social media sites, which often include a broader array of communication platforms.

Best Available Scientific Information

Following the requirements in 36 CFR 219.3, the Forest Service gathered the most accurate, reliable, and relevant information about the planning area to inform the evaluation of conditions and trends for the 15

topics addressed in this assessment. All data, studies, and reports supporting this assessment were evaluated for: (1) data quality, and (2) use of standardized scientific methodology. Opposing views and information along with the acknowledgment of incomplete or unavailable information and scientific uncertainty are also noted.

Information was provided by Forest Service staff using data acquired from many sources. Previous planning documents, landscape assessments, inventory and monitoring reports, publications, and geospatial resource data specific to the Chugach National Forest were used extensively. The Forest Service works cooperatively with many agencies (Federal, state, and local), organizations, and universities, and information generated through these cooperative efforts was also used and incorporated into this assessment. Pertinent information received from the public was also reviewed. Scientific review was provided by the Forest Service Pacific Northwest Research Station to insure the most relevant scientific information was used. References and citations to data sources are included throughout the document and a complete list of references is included. Additional data or relevant information received from external reviews of this assessment will be considered for inclusion in subsequent steps of the forest plan revision process.

Relevant Information

The responsible official will review the relevant information in this assessment to identify the preliminary needs to change the 2002 Forest Plan. Identifying the preliminary need to change is the first step in developing a proposed revised land management plan within the Forest Service planning framework (36 CFR 219.7(c)(2)).

Additional information that may inform the preliminary need to change the forest plan includes: provisions of the 2012 Planning Rule, annual Chugach National Forest monitoring reports, and public engagement and collaboration feedback, as well as planning and land use policies of federally recognized Indian Tribes, Alaska Native Corporations, other Federal agencies, and state and local governments where relevant.

As the Chugach National Forest enters the revision phase of the forest planning framework, the Forest Service will continue to provide opportunities for public participation and to consult with federally recognized Indian Tribes, Alaska Native Corporations, other federal agencies, and State and local governments. As next steps, public forums will be scheduled to share the identification of and rationale for the preliminary needs to change the 2002 Forest Plan. Additionally, stakeholders and the public will be invited to participate in or comment on the proposed revised plan as it is being developed.

List of Preparers

The following individuals participated in the assessment of conditions, trends analysis, compilation of findings, and publication of this assessment.

Interdisciplinary Team Members

- Vanessa Alao-McLeod, Engineer (facilities)
- Sue Alexander, Regional Economist
- Tara Barrett, Research Forester
- Sara Boario, Public Affairs and Partnership Staff Officer
- Cheryl Carrothers, Regional Wildlife Program Lead
- Mark Chilcote, Fisheries Biologist
- Angela Coleman, Hydrologist
- Paul Clark, Recreation Planner
- Ed DeCleva, Forest Archeologist and Tribal Relations Specialist
- Rob DeVelice, Ecologist
- Tanya Ellersick, Presidential Management Fellow
- Joe Ford, Forester
- Michael Goldstein, Regional Planner
- Heather Gott, Lands Specialist
- Greg Hayward, Regional Wildlife Ecologist (Climate Change Vulnerability Assessment)
- Steve Hohensee, Geologist
- Carol Howe, Writer-Editor (June 2013 to September 2013)
- Erik Jackson, Geographic Information Systems Group Leader
- Carole Jorgensen, Wildlife Biologist
- Steve Kessler, Planning Team Leader (March 2014 to September 2014)
- Amy Klein, Engineer (roads)
- John Lane, Regional Watershed and Air Program Manager
- Tim Lydon, Wilderness Ranger
- Chris Miller, Social Scientist
- Kori Marchowsky, Environmental Coordinator
- Sharon Randall, Planning Specialist
- Mary Rasmussen, Planning Team Leader (September 2014 to present)
- Donald Rees, Planning Team Leader (September 2012 to March 2014)
- Elysia Retzlaff, Writer-Editor (October 2012 to March 2013)
- Bill Rowe, Landscape Architect
- Barb Schrader, Regional Ecologist
- Mary Stensvold, Regional Botanist
- Kathy Van Massenhove, Special Uses Team Lead
- Karl Vester, Writer-Editor (October 2013 to present)